

## Abstract of the Disclosure

A discharge lamp which maintains a high lumen maintenance factor even when operated for a long time is obtained in a discharge lamp which has a silica glass discharge vessel and a pair of opposed electrodes in the discharge vessel and in which the discharge vessel is filled with at least  $0.15 \text{ mg/mm}^3$  mercury, a rare gas with argon as the main component, and  $2 \times 10^{-4} \text{ } \mu\text{mole/mm}^3$  to  $7 \times 10^{-3} \text{ } \mu\text{mole/mm}^3$  bromine by meeting the following conditions when feeding a direct current of 5 mA between the electrodes and a glow discharge produced:

Condition (1):  $1.0 \times 10^{-4} \leq b/a \leq 1.2 \times 10^{-1}$

Condition (2):  $c/a \leq 1.4 \times 10^{-1}$

Condition (3):  $d/a \leq 1.2 \times 10^{-2}$

Condition (4):  $e/a \leq 1.4 \times 10^{-2}$

where  $a$  is the emission intensity of the argon with a wavelength of 668 nm,  $b$  is the emission intensity of OH with a wavelength of 309 nm,  $c$  is the emission intensity of hydrogen (H) with a wavelength of 656 nm,  $d$  is the emission intensity of  $\text{C}_2$  with a wavelength of 517 nm, and  $e$  is the emission intensity of CH with a wavelength of 431 nm